

# SOUTHERN DELIVERY SYSTEM

## MONTHLY REPORT



The Southern Delivery System (SDS) is a regional project to bring water from the Arkansas River to Colorado Springs, the city of Fountain, the Security Water District, and the Pueblo West Metropolitan District. Phase 1 of this two-phase project includes all of the components necessary to begin delivering water to the partner communities (refer to map on page 4) by April 2016. This report summarizes accomplishments for the past month, plans for the next month, and key performance details for Phase 1. In February, construction continued at Pueblo Dam, the 18.3-mile segment of South Pipelines 1, 2, and 3, the 8.6-mile segment of South 4B, North 1A, and North 1B pipelines, and the 0.4-mile Finished Water Pipeline 1B. Upcoming work includes progressing construction, advancing design of the remaining pipeline segments and facilities, and land acquisition.

### Key Accomplishments in February

- **Construction Continued for Pueblo Dam Connection.** ASI Constructors continued construction of Pueblo Dam Connection 1A – an SDS connection to the Pueblo Dam North Outlet Works. ASI installed 60-inch flow control valves and began construction of the North Shore Retaining Structure, which is a structure that will hold the first section of pipe.
- **Construction Continued for South Pipeline 1.** HCP Constructors continued construction of South Pipeline 1 – a 4.2-mile raw water pipeline segment from the Juniper Pump Station site near Pueblo Dam north and northeast, almost to Highway 50 in southeastern Pueblo West. Work included the commencement of rock trenching operations and ongoing construction of Best Management Practices (BMPs), which are used to control stormwater discharges.
- **Construction Continued for South Pipeline 2.** Garney Construction continued construction of South Pipeline 2 – a 6.4-mile raw water pipeline from South Pipeline 1 to the northern boundary of Pueblo West. Work included the completion of rock trenching, delivering and laying pipe, site restoration, and placement of pipe in a tunnel previously bored under Highway 50.
- **Construction Continued for South Pipeline 3.** Reynolds, Inc. continued construction of South Pipeline 3 – a 7.6-mile raw water pipeline extending from South Pipeline 2 north to the boundary of Pueblo and El Paso counties. Work included the assembly and testing of a portable batch plant to provide a low-strength concrete backfill for this project. February marked the halfway point for completing pipe installation on this section.
- **Construction Continued on South Pipeline 4B and North Pipelines 1A and 1B.** HCP Constructors continued construction of an 8.6-mile section of pipeline through southeastern El Paso County from south of Squirrel Creek Road to Peaceful Valley Road east of Security. The tunneling operation under Squirrel Creek Road commenced, wetlands work began, and the Peaceful Valley Road crossing is complete.



N1B pipe installation continues

### Upcoming Work & Challenges

- **Continue Construction of Major Projects.**

*Pueblo Dam Connection.* ASI Constructors will continue construction of Pueblo Dam Connection 1A, progressing construction of the North Shore Retaining Structure, setting a 90-inch diameter section of pipe, and placing the concrete walkway.

*South Pipeline 1.* HCP Constructors will continue construction of South Pipeline 1, preparing to construct a 300-foot tunnel beneath the Union Pacific railroad and adjacent bluffs, constructing BMPs, preparing for trenching operations, and installing temporary fencing.

*South Pipeline 2.* Garney Construction will continue construction of South Pipeline 2, including the start of fiber optic conduit installation, completion of boring under Highway 50, and pipe delivery and installation.

*South Pipeline 3.* Reynolds, Inc. will continue construction of South Pipeline 3, including the startup and use of the concrete batch plant and completion of construction across Antelope Road.

*South Pipeline 4B and North Pipelines 1A and 1B.* HCP Constructors will continue construction of this section, focusing on the completion of trenching, pipe delivery, and installation in the Peaceful Valley neighborhood. Operations will move south to the area north of Squirrel Creek Road.

*Finished Water Pipeline 1B.* Garney Construction will continue construction of Finished Water Pipeline 1B, including site restoration and demobilization of tunneling equipment.
- **Continue Pipeline and Facilities Design.** Various design firms will continue preparing designs for South Pipeline 4A, North pipelines 1C, 2A, and 2B, Finished Water Pipeline 3, Water Treatment Plant and Finished Water Pump Station, and Raw Water Pump Stations. The Pueblo Dam Connection 1B bid package will be prepared.
- **Continue Land Acquisition.** The SDS team will continue to secure the properties needed for SDS Phase 1. Properties along South Pipeline 4A and North pipelines 1C and 2A in El Paso County will be the primary focus.

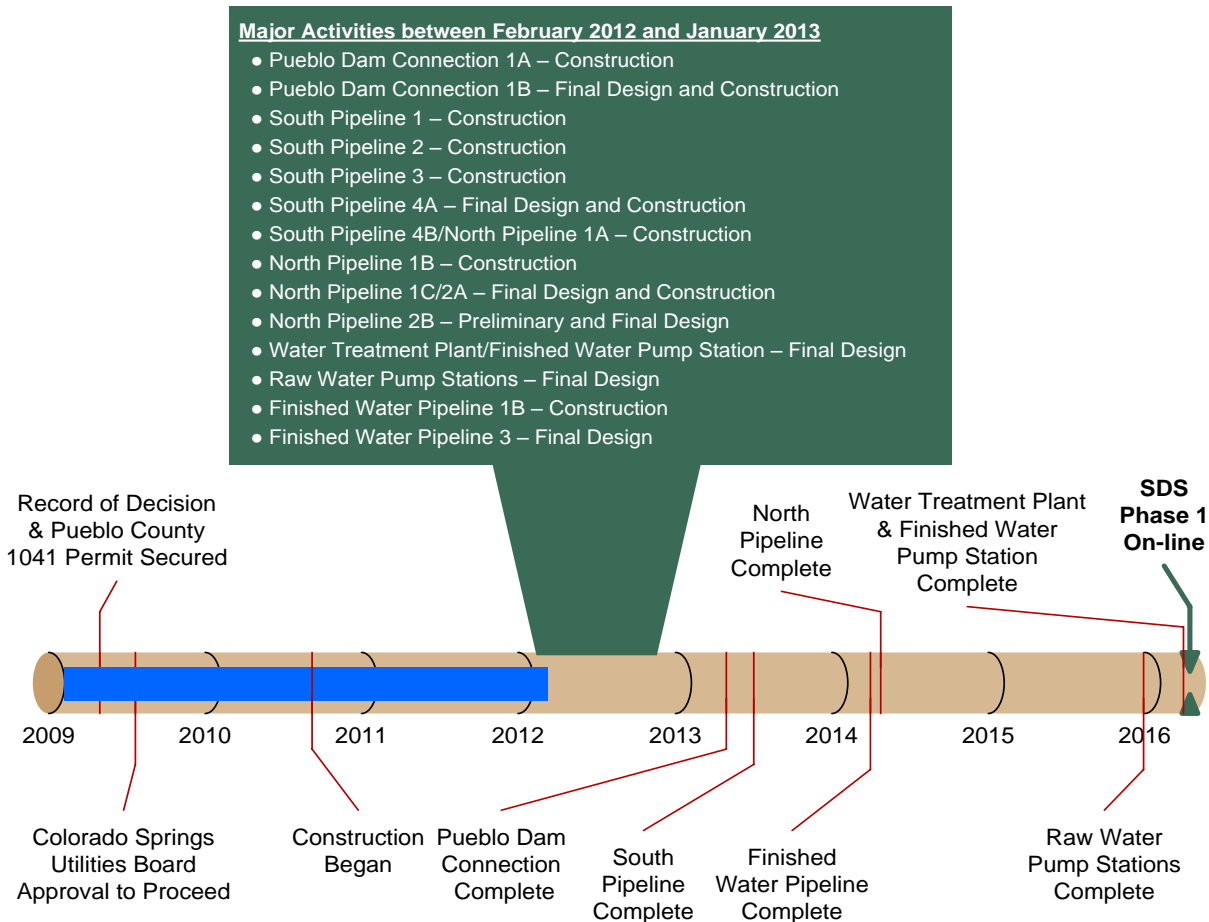
## Schedule Summary

**Figure 1** summarizes the schedule for completing Phase 1 of the SDS. This timeline shows the planned sequence for completing each of the core projects within Phase 1 and highlights major activities for the next 12 months. Colorado Springs Utilities anticipates completing Phase 1 as planned, with full operation beginning by April 2016.

Routine permitting, land acquisition, and final design of selected projects advanced after major permits and approvals were secured in 2009. Construction of the first pipeline project began in 2010 and is complete.

Ten construction projects are under way or scheduled to commence during the next 12 months. Continued design of seven projects is also planned.

**Figure 1 – Schedule Progress for Major SDS Phase 1 Projects**



## Upcoming SDS Procurements

We anticipate commencing the following procurements in the near future:

- **North Pipeline 2B Designer** – Q2 2012
- **Pueblo Dam Connection 1B Construction Contractor** – Q2 2012
- **South Pipeline 4A Construction Contractor** – Q2 2012
- **South Pipeline 1 Revegetation Contractor** – Q2 2012
- **North Pipeline 1C/2A Construction Contractor** – Q3 2012

Interested parties are encouraged to monitor the Rocky Mountain E-Purchasing System website ([www.RockyMountainBidSystem.com](http://www.RockyMountainBidSystem.com)) for these or other opportunities with Colorado Springs Utilities. Some opportunities are open only to pre-qualified companies.

## Local and Small Business Construction Opportunities

**McCarthy Building Companies**, design-build contractor for the SDS Water Treatment Plant and Finished Water Pump Station, and **CDM - Western Summit**, design-build contractor for the SDS Raw Water Pump Stations, have established separate websites that identify potential subcontractor opportunities and allow businesses to identify themselves and submit qualifications. Interested businesses can participate by accessing:

Water Treatment Plant and Finished Water Pump Station

<http://mccarthy-sdswatertreatmentplantproject.com/project-information/>

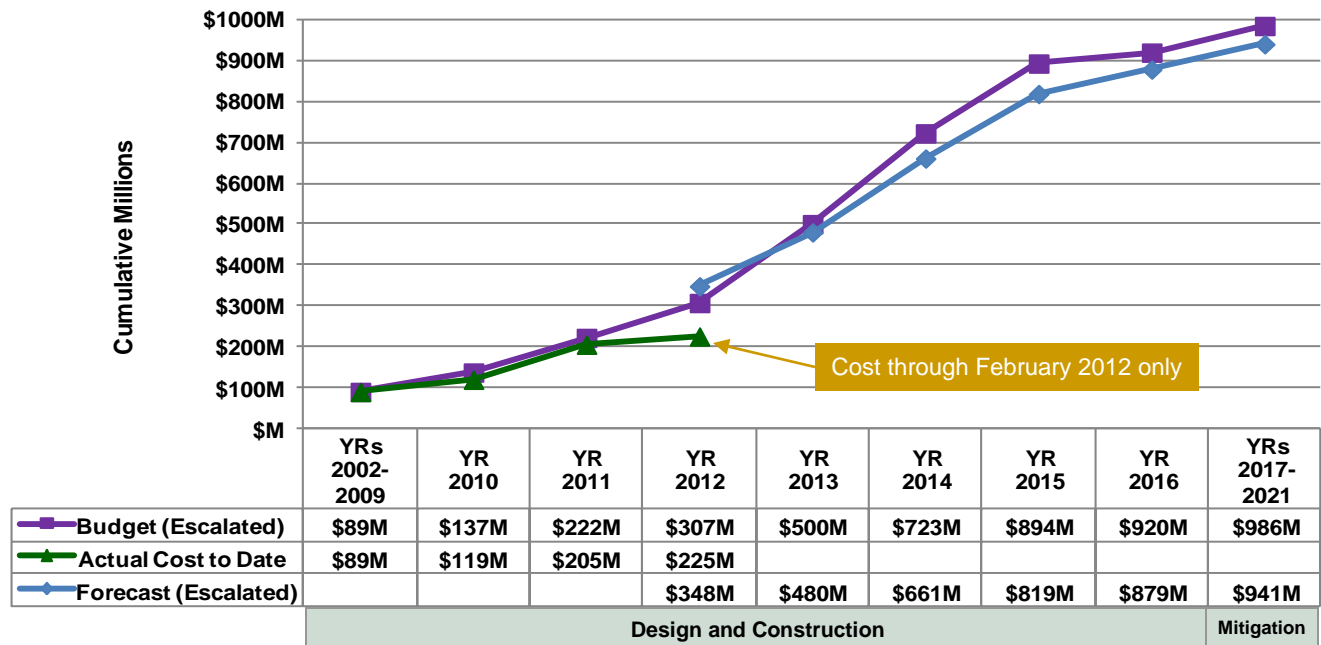
Raw Water Pump Stations

<http://www.isqft.com/new/difference>

## Cost Summary

**Figure 2** shows the budget for Phase 1, actual costs through February 2012, and forecasted costs for Phase 1. **Figure 3** shows the distribution of the actual costs. Key financial details are summarized below. The budget that is used to measure progress was established by the Colorado Springs Utilities Board in July 2009 and is \$880 million in April 2009 dollars. Accounting for actual and currently projected escalation in the cost of labor, materials, and equipment, the same 2009 budget equates to \$986 million after all direct project costs (including mitigation) are paid through 2021. The approved and anticipated water rate increases to pay for SDS Phase 1 already include these anticipated costs.

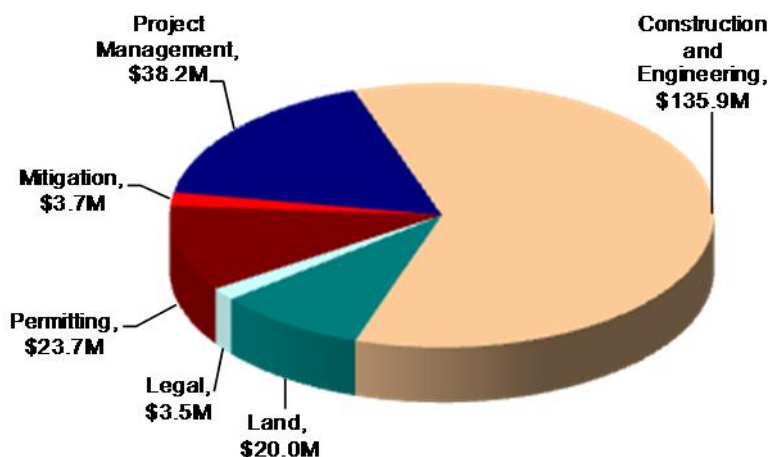
*Figure 2 – Phase 1 Budget Progress – Actual Costs through February 2012*



All \$ values in millions (M) and reflect direct project costs.

Budget and forecast \$ values include actual and projected cost escalation as measured by the Engineering News-Record's national Construction Cost Index and periodic forecasts by IHS Global Insight.

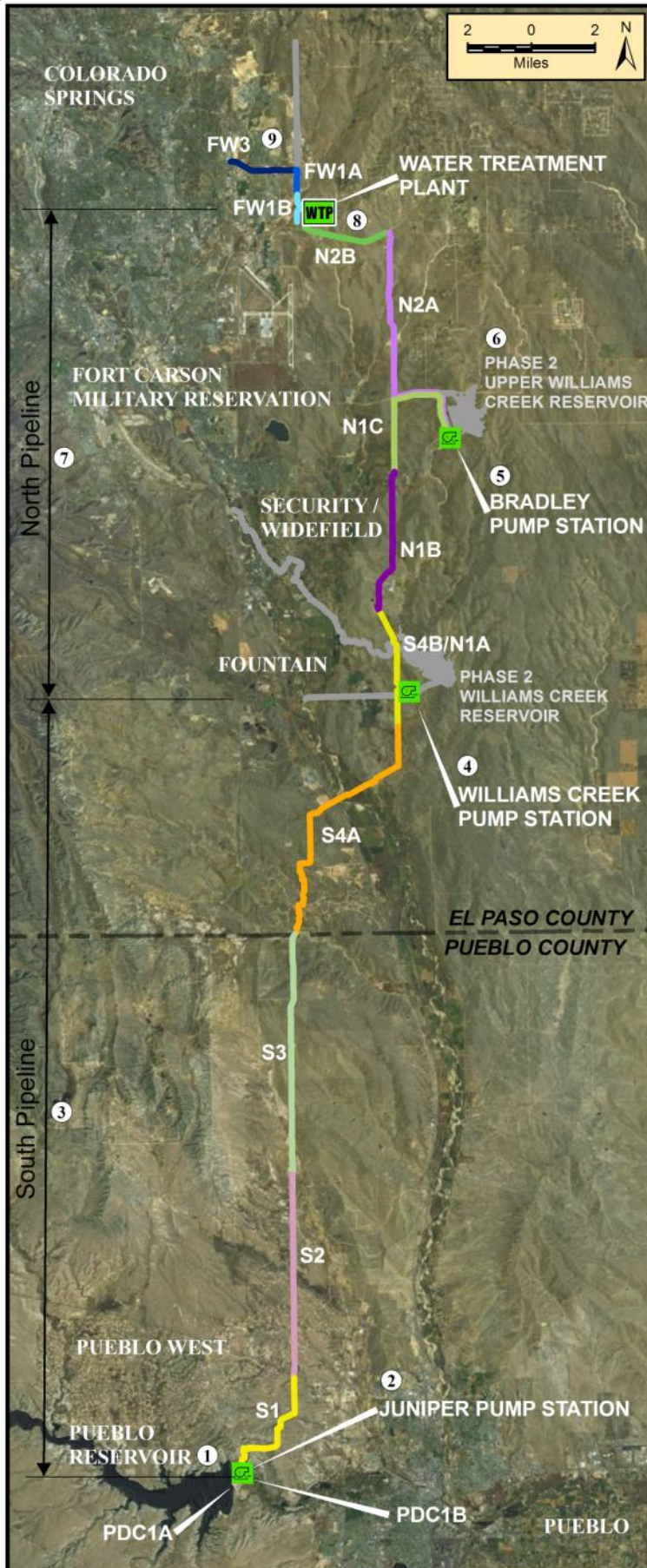
*Figure 3 – Distribution of Phase 1 Direct Costs through February 2012 (\$225M)*



### Key Financial Details

- The budget for Phase 1 is \$986 million, including actual and projected escalation, while the current cost forecast is \$941 million. The project is currently forecasting completion about \$45 million below budget.
- Cumulative actual costs to date are \$225 million, with a majority expended on construction and engineering, permitting, land, and management activities.
- Forecasted costs for 2012 are \$143 million with a cumulative cost of \$348 million by the end of 2012.
- Cumulative forecast costs exceed the budget in 2012 due to anticipated acceleration of pipeline construction to take advantage of favorable market conditions without affecting the rate increase projections for Phase 1.

Figure 4 – Phase 1 Projects Status Map



|   | <u>Schedule</u> | <u>Cost</u> |
|---|-----------------|-------------|
| <b>9 Finished Water Pipeline (FW)</b><br>Design: 40%<br>Land: 70% of properties secured<br>Focus: Constructing segment 1B, preparing a final design for segment 3   | ●               | ●           |
| <b>8 SDS Water Treatment Plant and Finished Water Pump Station</b><br>Design: 60%<br>Land: 100% of properties secured<br>Focus: Preparing a final design  | ●               | ●           |
| <b>7 North Pipeline (N)</b><br>Design: 90%<br>Land: 40% of properties secured<br>Focus: Constructing segments 1A & 1B, preparing a final design for segments 1C & 2A, preparing a preliminary design for segment 2B | ●               | ●           |
| <b>6 Upper Williams Creek Reservoir</b><br>Design: 30% design complete; completion of design planned in SDS Phase 2<br>Land: Acquisition planning under way<br>Focus: No significant activities                     | ●               | ●           |
| <b>5 Bradley Pump Station</b><br>Design: 30%<br>Land: Acquisition planning under way<br>Focus: Preparing a final design   | ●               | ●           |
| <b>4 Williams Creek Pump Station</b><br>Design: 30%<br>Land: 100% of properties secured<br>Focus: Preparing a final design  | ●               | ●           |
| <b>3 South Pipeline (S)</b><br>Design: 90%<br>Land: 90% of properties secured<br>Focus: Constructing segments 1, 2, & 3, preparing a final design for segment 4A, constructing segment 4B                           | ●               | ●           |
| <b>2 Juniper Pump Station</b><br>Design: 30%<br>Land: Coordinating land use authorization with the Bureau of Reclamation<br>Focus: Preparing a final design   | ●               | ●           |
| <b>1 Pueblo Dam Connection (PDC)</b><br>Design: 100%<br>Land: Not required<br>Focus: Constructing 1A, preparing a final design for 1B (pipeline)  | ●               | ●           |

| <u>Legend</u>                   |                                   |
|---------------------------------|-----------------------------------|
| <u>Schedule Status</u>          | <u>Cost Status</u>                |
| ● More than 30 days behind      | ● More than 10% or \$100,000 over |
| ● Between 15 and 30 days behind | ● Between 0% and 10% over         |
| ● On schedule                   | ● On budget                       |

Visit [www.sdswater.org](http://www.sdswater.org) for additional information.